From Table 8, it can be seen that the catalyst composition shows high activity in CEB isomerization reaction.

## What is Claimed is:

- 1. A catalyst composition for isomerizing halogenated aromatics, characterized in that the maximum diameter of secondary particles of the zeolite in the formed catalyst is 5 microns or less.
- 2. A catalyst composition, according to claim 1, wherein the halogenated aromatics are compounds represented by the following general formula (I):  $X^2$

(where X1 stands for a halogen atom; X2, a hydrogen atom or halogen atom; and X3, a halogen atom or lower alkyl group.)

- 3. A catalyst composition, according to claim 2, wherein with a halogen atom selected as X1, a hydrogen atom selected as X2 and a halogen atom or methyl group selected as X3 in the general formula (I), the aperture of the largest pore of the zeolite comprises the 10-membered oxygen ring.
- 4. A catalyst composition, according to claim 3, wherein the halogenated aromatics are dichlorobenzene and chlorotoluene.
- 5. A catalyst composition, according to claim 2, wherein with a halogen atom selected as X1, a halogen atom selected as X2 and a halogen atom or lower alkyl group with 1 to 4 carbon atoms selected as X3, or with a halogen atom selected as X1, a hydrogen atom selected as X2 and a lower alkyl group with 2 to 4 carbon atoms selected as X3 in the

general formula (1), the zeolite is mordenite.

- 6. A catalyst compound, according to claim 5, wherein the halogenated aromatics are dichlorotoluene, trichlorobenzene and chloroethylbenzene.
- 7. A catalyst composition, according to any one of claims 1 through 6, wherein the zeolite is an acid type zeolite.
- 8. An isomerizing catalyst composition, according to claim 5, which contains mordenite of 0.2 micron or less in the longest axes of the primary particles.
- 9. A catalyst composition, according to claim 8, wherein the maximum diameter of secondary particles of the mordenite in the formed catalyst containing said mordenite of 0.2 micron or less in the longest axes of the primary particles is 5 microns or less.
- A catalyst composition, according to any one of claims
   though 9, which contains rhenium.
- 11. A catalyst composition, according to claim 10, wherein said rhenium is contained by 0.05 to 2 wt% as metal based on the weight of the catalyst composition.
- 12. A catalyst composition, according to any one of claims5 through 9, which contains rhenium and silver.
- 13. A catalyst composition, according to claim 12, wherein said rhenium is contained by 0.05 to 2 wt% as metal based on the weight of the catalyst composition and said silver is contained by 0.5 to 10 wt% as metal based on the weight of the catalyst composition.
- 14. A catalyst composition, according to claim 13, wherein said rhenium is contained by 0.05 to 1 wt% as metal based

on the weight of the catalyst composition and said silver is contained by 1 to 7 wt% as metal based on the weight of the catalyst composition.

- 15. A catalyst composition, according to any one of claims
  10 through 14, which further contains at least either of fluorine and phosphorus.
- 16. A catalyst composition, according to claim 15, wherein said at least either of fluorine and phosphorus is contained by 0.05 to 2 wt% as fluorine atoms and/or phosphorus atoms based on the weight of the catalyst composition.
- 17. A catalyst composition, according to any one of claims 5 though 16, wherein the silica/alumina molar ratio of the mordenite is 15 to 30.
- 18. A method for isomerizing halogenated aromatics, characterized in that the catalyst composition stated in any one of claims 1 through 17 is brought into contact with halogenated aromatics.
- 19. An isomerization method, comprising the step of bringing halogenated aromatics containing 15 ppm or less of dissolved oxygen into contact with a zeolite-containing catalyst.
- 20. An isomerization method, according to claim 19, wherein before the halogenated aromatics are brought into contact with said zeolite-containing catalyst, said halogenated aromatics are treated by any of dissipation treatment, reduced pressure treatment or distillation treatment, to remove the dissolved oxygen.
- 21. An isomerization method, according to claim 19 or 20,